READ THIS BOOK first

# Getting Started

*With Your Macintosh® PowerBook™ 140/170*

*Includes setup information*

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# Contents

## Important

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. See instructions if interference to radio or television reception is suspected.

## Radio and television interference

The equipment described in this manual generates, uses, and can radiate radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with Apple's instructions—it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether your computer system is causing interference by turning it off. If the interference stops, it was probably caused by the computer or one of the peripheral devices.

If your computer system does cause interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the computer to one side or the other of the television or radio.
- Move the computer farther away from the television or radio.
- Plug the computer into an outlet that is on a different circuit from the television or radio. (That is, make certain the computer and the television or radio are on circuits controlled by different circuit breakers or fuses.)

If necessary, consult your authorized Apple dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet, prepared by the Federal Communications Commission: *Interference Handbook* (stock number 004-000-00345-4). This booklet is available from the U.S. Government Printing Office, Washington, DC 20402.

**Important:** Changes or modifications to this product not authorized by Apple Computer, Inc., could void the FCC Certification and negate your authority to operate the product.

This product was tested for FCC compliance under conditions that included the use of shielded cables and connectors between system components. It is important that you use shielded cables and connectors to reduce the possibility of causing interference to radios, television sets, and other electronic devices. For Apple peripheral devices, you can obtain the proper shielded cables from your authorized Apple dealer. For non-Apple peripheral devices, contact the manufacturer or dealer for assistance.

DOC Class B Compliance This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interference regulations of the Canadian Department of Communications.

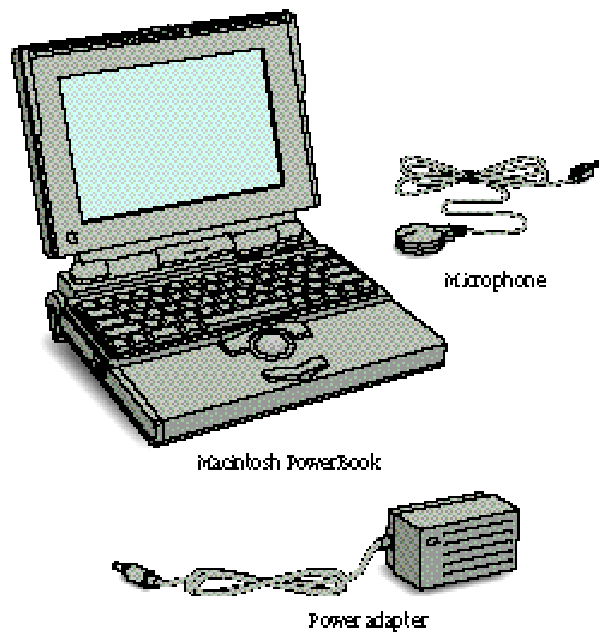
Observation des normes—Classe B Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe B prescrites dans les règlements sur le brouillage radioélectrique édictés par le Ministère des Communications du Canada.

GS Compliance This product is only in compliance with GS requirements for office use when used with the following external Apple keyboards: M0116 and M0312, or equivalent.

# Setting Up

Setting up your Macintosh® PowerBook™ 140/170 involves these steps:

- Plugging in the power adapter
- Turning on your computer
- Adjusting screen brightness and contrast
- Connecting the microphone
- Adjusting the keyboard angle

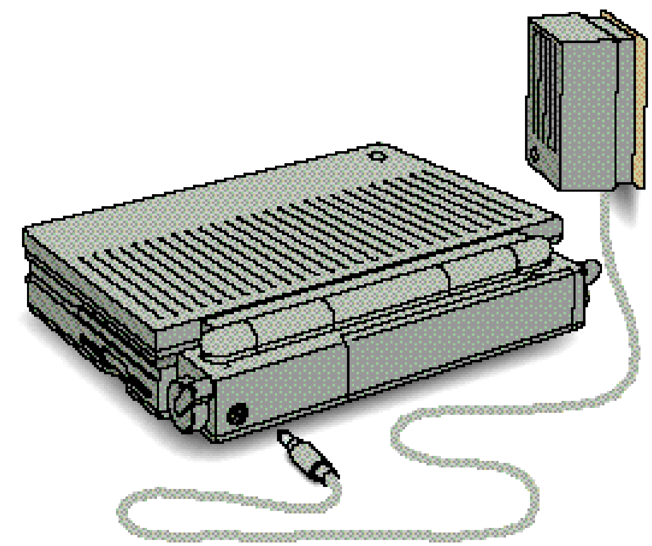


## Plugging in the power adapter

Before you begin your first session with your PowerBook, you should plug in the power adapter to recharge the battery. The battery may have drained slightly during shipping and storage.

▲ **Warning:** Use only the power adapter that came with your Macintosh PowerBook computer. Adapters for other electronic devices (including other portable computers) may look similar, but they may damage your computer. Likewise, the power adapter for your Macintosh PowerBook should not be used with other electronic equipment. ▲

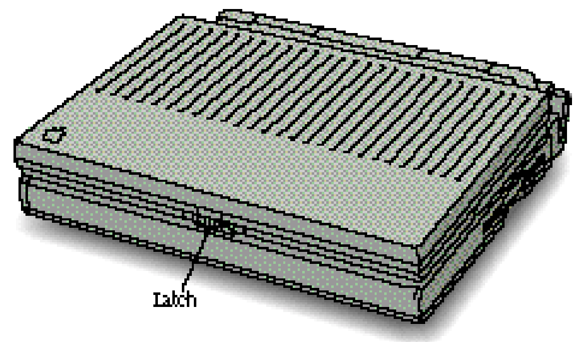
1. **Plug the power adapter cable into a standard electrical outlet or power strip. (If you are using a power strip, make sure that it is turned on.)**



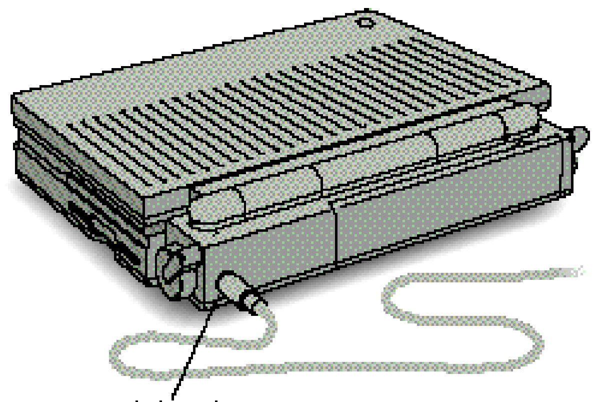
# Turning on your computer

To turn your computer on for the first time, follow these steps.

**1. Position the computer with its latch toward you.**

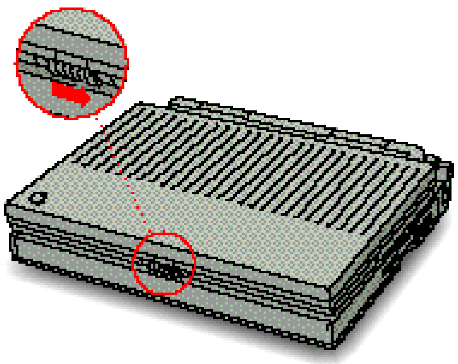



**2. Plug the power adapter cable into the power adapter port on the computer's back panel.**



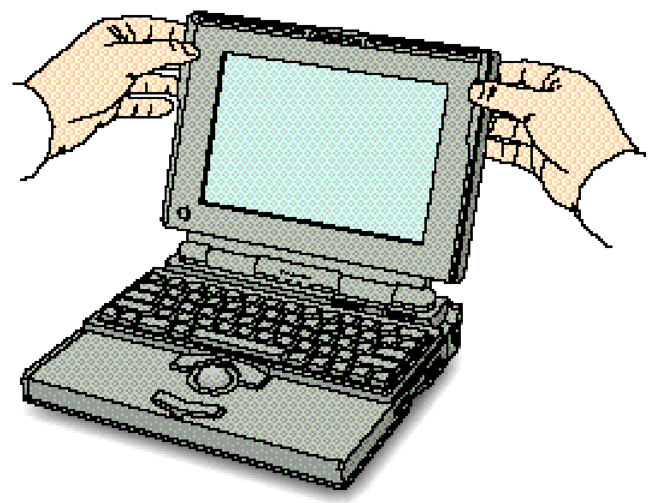

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**2. Slide the latch to the right and gently lift up the display.**

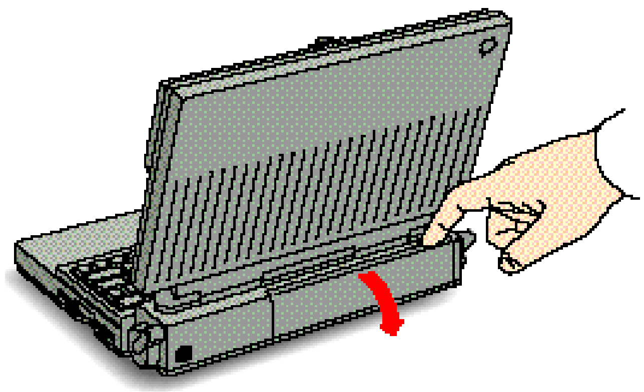


**3. Raise the display to a comfortable viewing angle.**

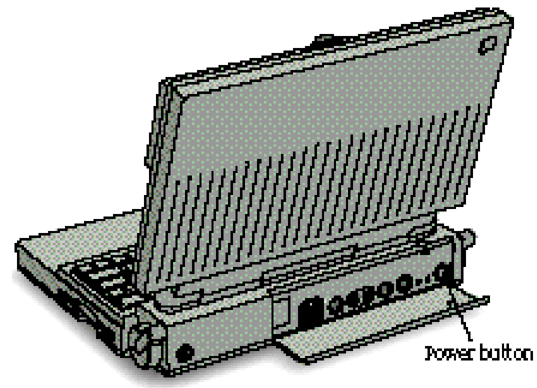
You can adjust the angle of the display at any time.



4. **Open the door to the back panel of your computer by putting your finger into the groove and pulling down on the door.**

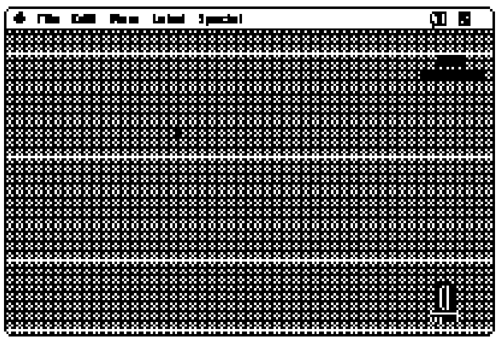


5. **Turn on your computer by pressing the power button at the back of the computer.**

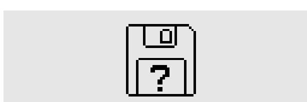



*continues* >

You should see the Macintosh desktop with the hard disk icon at the top-right corner of your screen. Turn now to page 7 for information about adjusting screen brightness.



- If you see a blinking question mark on your screen, you need to install system software on the computer's hard disk. (System software is a set of programs the computer uses to start itself up.) See Chapter 8 of your *Macintosh User's Guide* for information on installing system software. Then come back to this book.



## Problems starting up?

If you don't see anything on the screen, check these items to see if you can identify the problem.

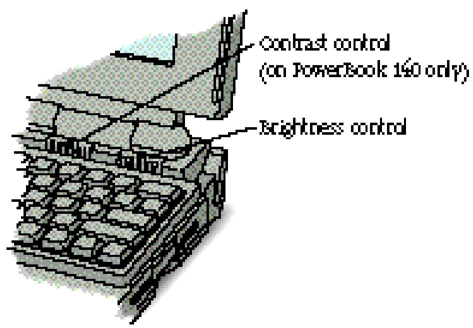
- Is the power adapter firmly plugged into a power source? If it is plugged into a power strip, is the power strip turned on?
- Is the computer itself turned on?
- Is the brightness turned up enough to show the image on the screen? See page 7 for information on adjusting screen brightness.

# Adjusting screen brightness and contrast

You may need to adjust the brightness and contrast of the screen when you take the computer from one work location to another, or if the lighting in your work area changes. (There is no contrast control on the PowerBook 170; the computer provides automatic contrast control.)

To adjust screen brightness:

1. **Locate the brightness control at the back of the keyboard.**




2. **Slide the brightness control to the right to increase brightness, to the left to decrease brightness.**

To adjust the contrast (Macintosh PowerBook 140 only):

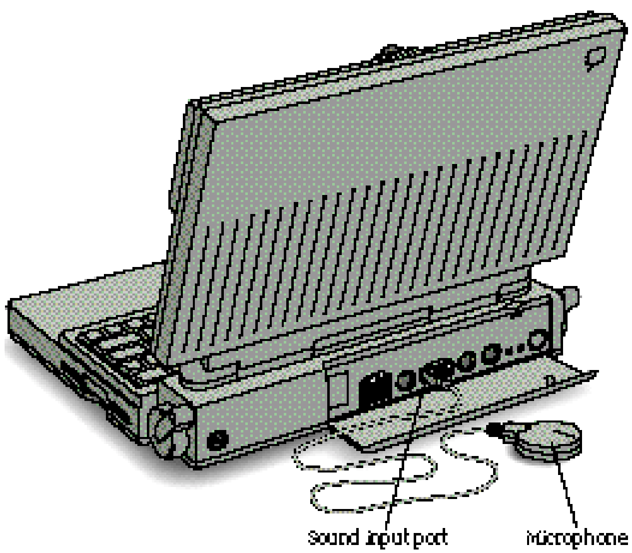
1. **Locate the contrast control at the back of the keyboard, to the left of the brightness control.**

2. **Slide the contrast control to the left for greater contrast, to the right for less contrast.**

# Connecting the microphone

Your Macintosh PowerBook comes with a microphone that can be used to record live sounds. To connect the microphone, follow these steps:

1. **Open the door to the back panel of your computer.**
2. **Plug the microphone into the sound input port on the back panel of your computer.**




3. **Decide where you want to place the microphone.**

   The microphone that comes with your computer can pick up sounds within a range of several feet. You can use the holder to clip the microphone to your shirt, if you wish.

   There is no on/off switch on the microphone. The microphone is controlled by the program you use to record sounds.

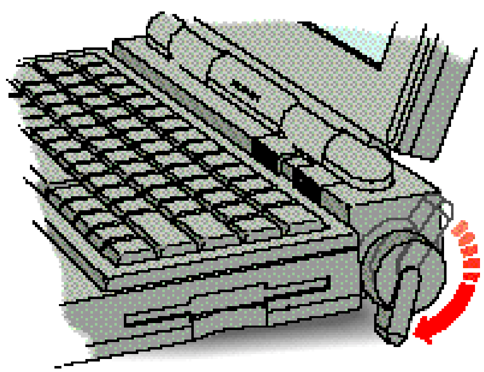
▲ **Warning:** Be careful not to plug any sound output devices (such as a pair of headphones) into the sound input port. Doing so may damage your audio equipment. ▲

## Adjusting the angle of the keyboard

For greater comfort as you work with your Macintosh, you can adjust the angle of the keyboard.

- **Rotate the elevation feet at both sides of the back panel until they snap into position.**

  The back of the keyboard is slightly elevated when the feet are in use. Otherwise, the keyboard is level.



## *What's next?*

You've completed setting up your computer. Continue with one of the following steps:

- If you are new to the Macintosh, continue with "Learning the Basics" to learn more about how to use your computer.
- Turn to pages 18 and 19 for an overview of the major features of your computer and instructions on how to find out more about them.
- Read the information in Chapters 2 and 8 of the *Macintosh User's Guide* that explains how to work more comfortably with your computer.
- Read the safety information in Chapter 16 of the *Macintosh User's Guide* to make sure you know how to protect yourself and your computer from accidental harm.
- Start your own work. Consult the *Macintosh User's Guide* if you have questions about your computer. Features specific to your computer are discussed primarily in Chapters 9 (power and batteries), 15 (expanding your computer system), and 16 (care and maintenance). Other chapters describe features of Macintosh system software.

This book contains information that you may need as you use your computer. Keep it with your other manuals for future reference.

# Learning the Basics

If you are new to Macintosh computers, turn now to the training materials provided with your computer.

- The *Macintosh Basics* tour teaches the most basic skills you need to master before you can use your computer.
- The *Learning Macintosh* section of your *Macintosh User's Guide* reinforces the basic skills taught in the tour, and teaches a few additional skills you'll find helpful as you become more proficient.

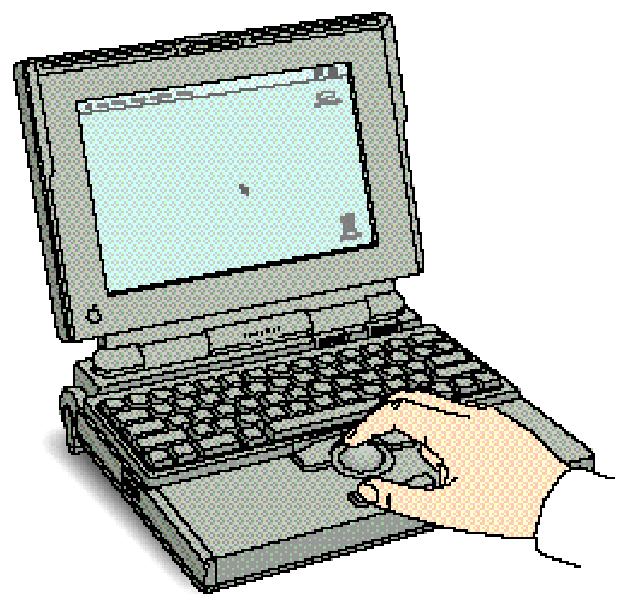
Take the *Macintosh Basics* tour first and then work through the *Learning Macintosh* section of your user's guide.

## Starting the *Macintosh Basics* tour

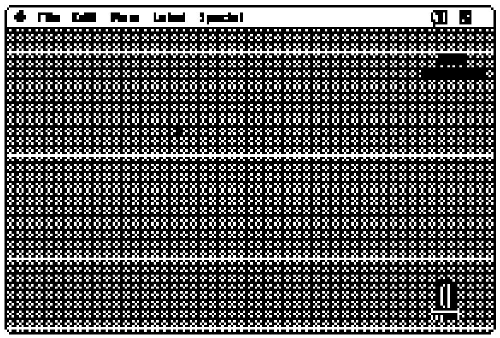
**Before you begin:** Make sure your computer is turned on, as described in "Turning On Your Computer" earlier in this book.

**1. Use the trackball to move the arrow around on the screen.**

Place the index and middle fingers of your dominant hand on the trackball and the thumb of the same hand on the lower trackball button. (Don't press the button yet.) Watch the screen.

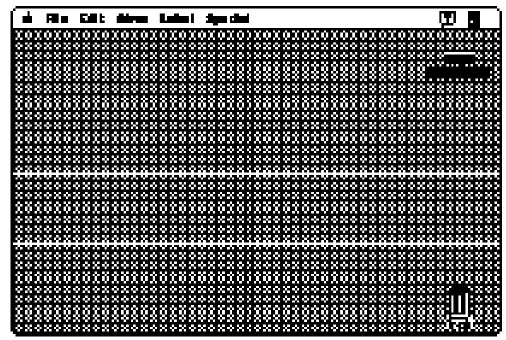


**2. Notice that the arrow on the screen moves in the same direction that you roll the trackball.**



**3. Use the trackball to move the arrow over the picture labeled "Macintosh HD."**

Make sure the tip of the arrow is inside the rectangle and not over the text.

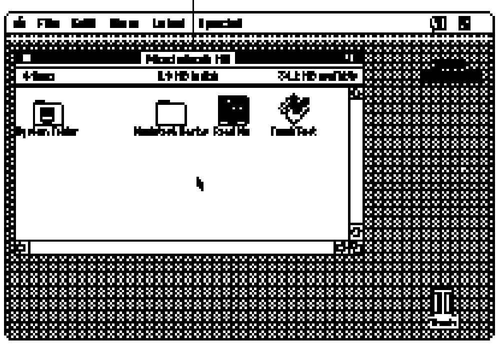


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**4. Being careful not to roll the trackball, click one of the buttons twice in succession.**

Both buttons do the same thing. Now your screen should look like this:

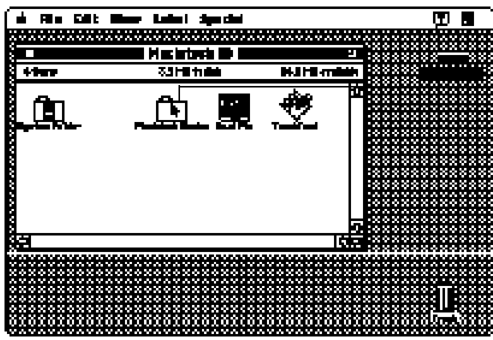
The pictures on your screen may look slightly different.



If your screen does not look like this, try step 4 again, paying attention to the following:

- Be sure to click twice.
- Make sure the tip of the arrow is inside the picture and not just over the text.
- Try clicking twice more quickly—but be sure not to move the trackball while you're clicking.

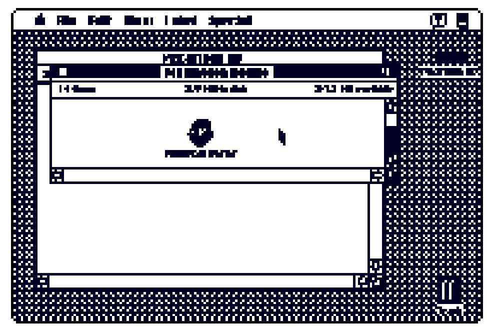
**5. Use the trackball to move the arrow over the picture that is labeled "Macintosh Basics."**



Put the tip of the arrow inside this picture.

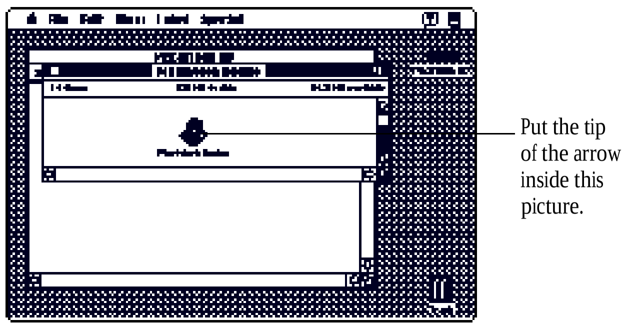
**6. Make sure the tip of the arrow is inside the picture labeled "Macintosh Basics." Then press the trackball button twice in succession.**

After the second click, your screen should look like the following picture:

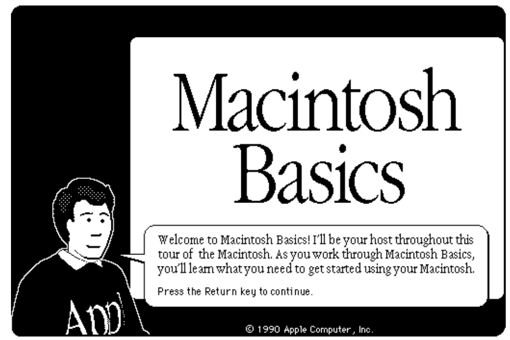


*continues* >

7. **Use the trackball to move the arrow over the picture of the man that is labeled "Macintosh Basics." Make sure the tip of the arrow is inside the picture. Then press the trackball button twice in succession.**




After the second click, you should see the following screen:




8. **Now follow the instructions on the screen and work through** *Macintosh Basics.*

When you have completed *Macintosh Basics,* turn to the *Learning Macintosh* section of your *Macintosh User's Guide* to continue your training.

# Turning the computer on and off

If you plan to continue working with your Macintosh, *don't* turn off your computer yet. (Before you can turn your computer off, you need to know how to use the trackball to choose a command from a menu. You can learn this skill in *Macintosh Basics.* )

## Putting the computer to sleep

Most electronic devices, including other computers you may have used, have two power states: on and off. Macintosh PowerBook computers, however, have three power states: on, sleep, and off. (Chapters 1 and 9 of the *Macintosh User's Guide* give a more detailed explanation of these power states.)

If you are going to take a break and resume work within a few hours, you can simply put the computer to sleep. To put the computer to sleep, follow these steps.

1. **Point to the Special menu title in the menu bar.**

   Roll the trackball until the arrow pointer is positioned on the word "Special."

2. **Press and hold down one of the trackball buttons.**

   Use whichever button you prefer; both work the same way.

*continues* >

3. **Drag through the items in the menu until the Sleep command is highlighted, and then release the trackball button.**




## Turning the computer off

If you are finished working for the day, or if you plan to transport your computer or attach any equipment to it, you should shut the computer down. To shut the computer down, follow these steps.

1. **Point to the Special menu title in the menu bar.**

   Roll the trackball until the arrow pointer is positioned on the word "Special."

2. **Press and hold down one of the trackball buttons.**

   Use whichever button you prefer; both work the same way.

**3. Drag through the items in the menu until the Shut Down command is highlighted, and then release the trackball button.**



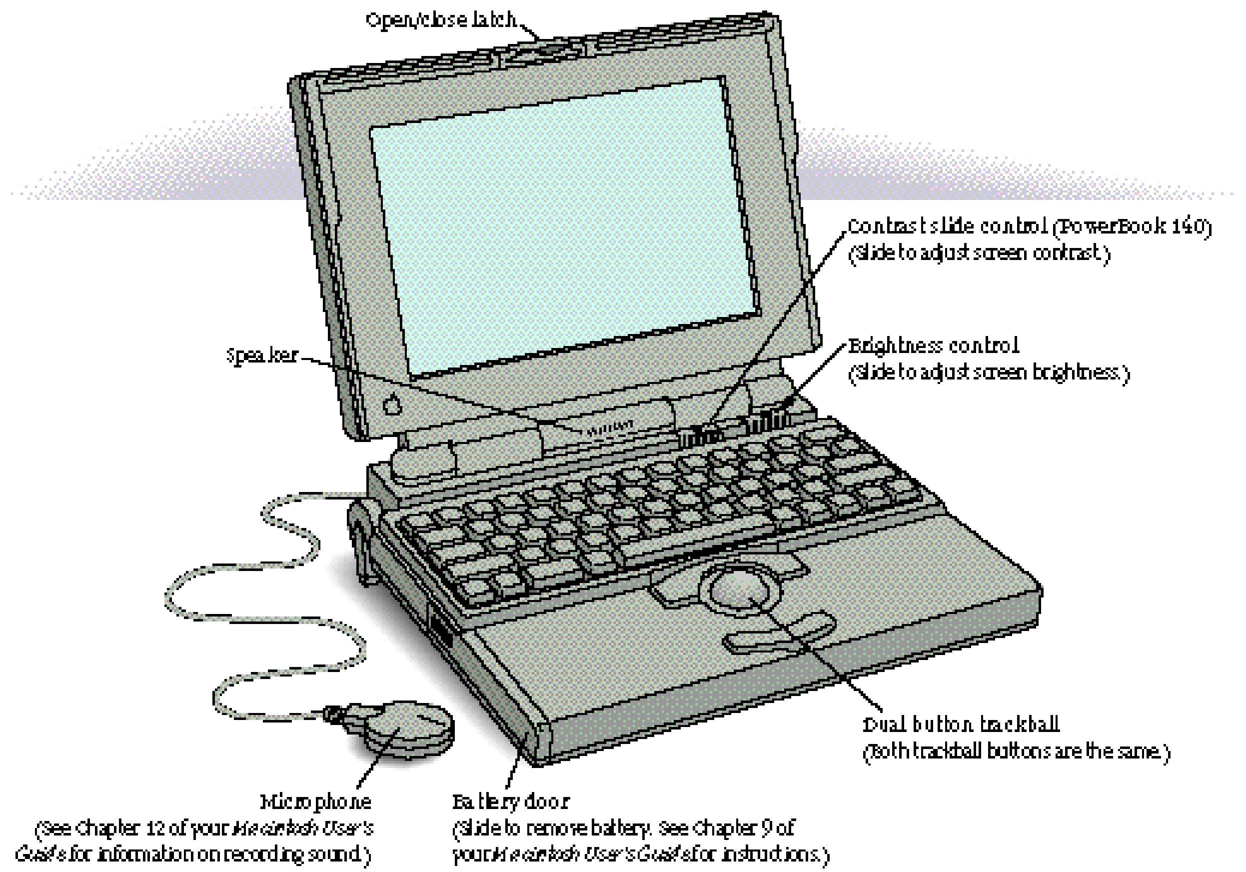

▲ **Warning:** Never shut the computer down with the power button; you risk permanently losing information or damaging your hard disk. ▲

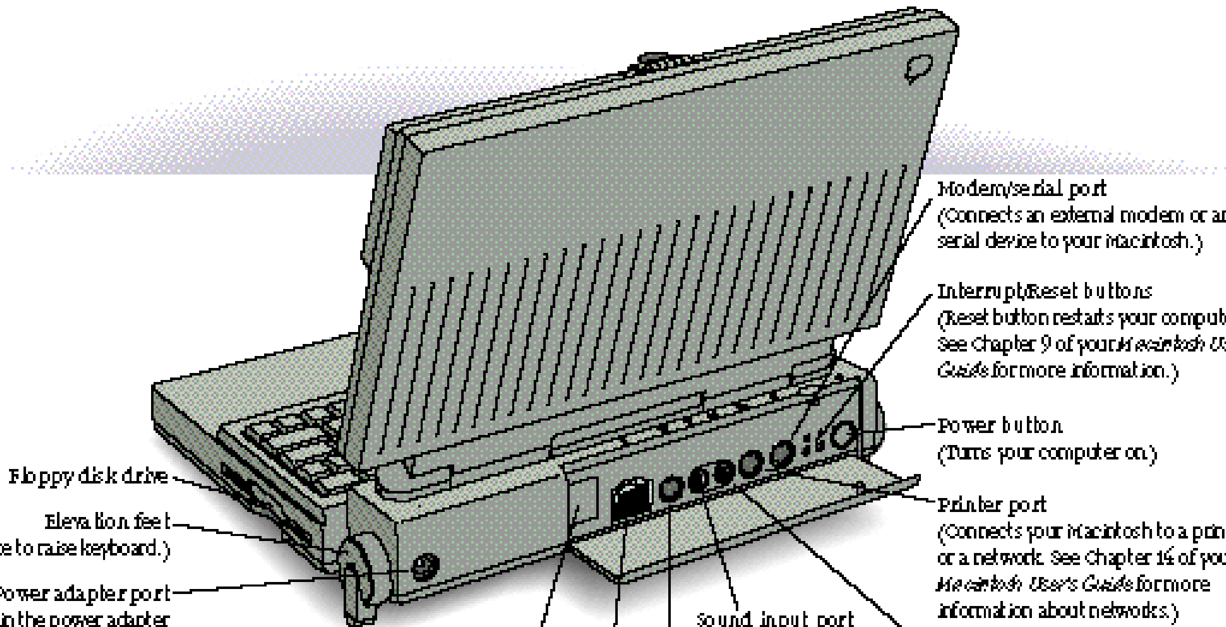
## Turning the computer on

If your computer is in sleep, you turn it on by pressing any key on the keyboard except Caps Lock. The desktop appears on the screen immediately.

If the computer is shut down, you turn it on by pressing the power button. You hear a sound and it takes a moment for the desktop to appear on the screen.

# Your Computer at a Glance




Modem/serial port
(Connects an external modem or another serial device to your Macintosh.)
Interrupt/Reset buttons
(Reset button restarts your computer. See Chapter 9 of your Macintosh User's Guide for more information.)
Power button
(Turns your computer on.)
Printer port
(Connects your Macintosh to a printer or a network. See Chapter 14 of your Macintosh User's Guide for more information about networks.)
Sound output port
(Connects your Macintosh to headphones, speakers, or other audio output devices. See Chapter 15 of your Macintosh User's Guide for more information.)
Sound input port
(Plug in the microphone here.)
ADB port
(Connects your Macintosh to input devices. See Chapter 15 of your Macintosh User's Guide for more information.)
SCSI port
(Connects your Macintosh to SCSI devices such as hard disk drives, scanners, and printers. See Chapter 15 of your Macintosh User's Guide for more information.)
Internal modem
(Available for both PowerBook 140 and 170. Has built-in fax send capability. See the modem manual for more information.)
Floppy disk drive
Elevation feet
(Rotate to raise keyboard.)
Power adapter port
(Plug in the power adapter here. See Chapter 9 of your Macintosh User's Guide for more information.)

# Technical Information

## Specifications

### Processor

- *PowerBook 170:*
  68030 with 68882 math coprocessor, 25 MHz clock frequency
- *PowerBook 140:*
  68030, 16 MHz clock frequency

### Memory

- *PowerBook 170:*
  4 MB pseudostatic RAM, expandable to 8 MB
  1 MB ROM
- *PowerBook 140:*
  2 or 4 MB pseudostatic RAM, expandable to 8 MB
  1 MB ROM

### Disk drives

- *PowerBook 170:*
  Internal 40 MB hard disk drive
  Built-in 1.4 MB floppy disk drive
- *PowerBook 140:*
  Internal 20 or 40 MB hard disk drive
  Built-in 1.4 MB floppy disk drive

### Video display

- *PowerBook 170:*
  640 x 400 backlit active matrix
- *PowerBook 140:*
  640 x 400 backlit Supertwist

### Battery

- Nickel cadmium, 2.5 Ah, 2–3 hours of operation

### Backup battery

- 30 mAh rechargeable lithium battery

### Interfaces

- Apple Desktop Bus™ (ADB) port for keyboard, mouse, and other devices using a low-speed, synchronous serial bus
- Two serial ports for serial printers, modems, and other serial devices (RS-422)
- SCSI port for hard disk drives, scanners, printers, and other devices (HDI-30 connector)
- Sound output port for external audio amplifier
- Sound input port for monaural sound input

**Sound generator**

- 4-voice sound with 8-bit digital-analog conversion recording at 11 kHz or 22 kHz sample rate

**Power adapter**

- Input: AC 100–240 V, 50/60 Hz
- Output: DC 7.5 V, 2.0 A

❖ *Note:* Your PowerBook 140/170 can be used anywhere in the world with a plug adapter. ❖

**Clock/calendar**

- CMOS custom chip with long-life lithium battery

**Keyboard**

- 3.0 mm travel keyboard; 18 mm vertical pitch, 18.63 mm horizontal pitch

**Trackball**

- 30 mm diameter

**Modem**

- 2400-baud modem with 9600-baud send fax capability, available for both PowerBook 140 and 170
- Supports MNP error correction and data compression classes 4 and 5, as well as CCITT v.42 and v.42bis

## Weight

- 3.1 kg (6.8 lb.)

## Dimensions

- 286 mm x 235 mm x 57 mm (11.25" x 9.3" x 2.25")

## Apple Desktop Bus power requirements

- Maximum current draw for all ADB devices is 50 mA

❖ *Note:* The maximum number of ADB devices recommended in a daisy chain connected to the ADB port is three. ❖

## RAM configurations

2 MB RAM is soldered to the main logic board. (In 4 MB configurations, an additional 2 MB RAM is on the RAM expansion card.) Additional RAM can be installed by means of a memory expansion card.

RAM chips must be rated at 100 ns RAM access time or faster.

▲ **Warning:** Do not attempt to install additional RAM yourself. Doing so will void the warranty on your computer. See your authorized Apple® dealer or service provider. ▲

## Microphone/Sound

- The microphone is an electret type, omnidirectional microphone that is powered by the computer. Microphone output voltage is 4 millivolts (mV) peak to peak at normal speaking volume.

❖ *Note:* You can also use adapters to input sound from audio equipment with line level outputs, but the line level signals must be attenuated before reaching the computer's sound input port. An attenuation of 500:1 is recommended when inputting line level signals. Appropriate attenuation cables and adapters are available from most electronics stores. ❖

## Environment

**Operating temperature**

- 10° C to 40° C (50° F to 104° F)

**Storage temperature**

- –25° C to 60° C (–13° F to 140° F)

**Relative humidity**

- 20% to 80% (noncondensing)

**Altitude**

- Operating: 3048 m (10,000 ft.) maximum
- Shipping (non-operating): 4572 m (15,000 ft.) maximum

# Options and accessories

The following are available as options and accessories for your PowerBook 140/170.

| Item | Part number |
|---|---|
| Macintosh PowerBook 2 MB Memory Expansion Kit | M1032LL/A |
| Macintosh PowerBook 4 MB Memory Expansion Kit | M1033LL/A |
| Macintosh PowerBook 140/170 Battery Recharger | M1027LL/A |
| Macintosh PowerBook 140/170 Rechargeable Battery | M5545LL/A |
| Macintosh PowerBook AC Adapter | M1058LL/A |
| Macintosh PowerBook Fax/Data Modem (for U.S., Canada, and Japan) | M0980**/A |
| Macintosh PowerBook Fax/Data Modem (for Europe, Australia, and some South American countries) | M0970LL/A |
| Apple HDI-30 SCSI System Cable | M2538LL/A |

## The Apple Publishing System

This Apple® manual was written, edited, and produced on a desktop publishing system using Apple Macintosh® computers and QuarkXPress. Proof pages were created on Apple LaserWriter® printers and on the QMS ColorScript 100 color printer. Final pages were output directly to separated film on a Dolev PS imagesetter. Line art was created with Adobe Illustrator. Cover art was produced with Adobe Photoshop. Screen shots were created and modified with system software, Exposure, and MacPaint.

Text type is Apple's corporate font, a condensed version of Garamond. Ornaments are ITC Zapf Dingbats® and custom symbols designed for Apple Computer.

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